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ABSTRACT

This paper provides a detailed analysis of evidence concerning benefits of parent involvement in early intervention programs. It is maintained that two dimensions should be considered in defining parent involvement in early intervention programs: (1) the type of activities in which parents engage or the types of resources and assistance which are offered to parents as a function of their involvement; and (2) the attitude and context in which the activities are presented. The six reasons most frequently offered for the importance of parent involvement are summarized. These reasons include the notions that: parents are responsible for the welfare of their children; involved parents provide better political support and advocacy than uninvolved parents; early intervention programs that involve parents are more effective than those which do not; and parent involvement provides benefits to parents and other family members as well as children. Subsequent discussion examines data concerning benefits associated with parent involvement and concludes that there is little evidence for the position that early intervention programs which involve parents will be more effective than those programs which do not. Examined are numerous previous reviews of parent involvement research, nearly 200 early intervention studies and non-intervention studies, and a few experimental studies. Discussion concludes with recommendations for future research and practice. About 65 references are cited. (RH)

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DOES RESEARCH SUPPORT CLAIMS ABOUT THE BENEFITS OF INVOLVING PARENTS IN EARLY INTERVENTION PROGRAMS?

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Does Research Support Claims About the Benefits of Involving Parents in Early Intervention Programs?

One of the most frequent claims of researchers, administrators, and practitioners involved in early intervention is that parent involvement leads to more effective intervention programs. The claim that parent involvement is essential to child development and educational success is not new. Frederick Frobel, one of the primary contributors to the establishment of American kindergarten programs, argued that,

> All are looking for reform in education....If building is to be solid, we must look to the foundations--the home. The home education of rich and poor alike must be supplemented....It therefore behooves the state to establish institutions for the education of children, of parents and of those who are to be parents. (Hauschmann, 1897, p. 183)

The emphasis on involving parents in the education of their children has continued unabated to the present time. In every decade since the turn of the century, there have been many who have advocated vigorously for the importance of involving parents in all educational efforts (see Florin & Dokecki, 1983, and Fein, 1980, for an excellent summary of the historical involvement of parents in educational programs). With the federal funding of Head Start in 1965, and the Handicapped Children's Early Education Program (HCEEP) in 1968, early intervention became established as a full-fledged movement. Given the history of parent involvement programs in this country, it was no surprise that the importance of involving parents was emphasized as a key to the success of these programs. Since that time, the importance of involving parents in early intervention programs for disadvantaged, handicapped, and at-risk children has gained momentum until it has now been established as being axiomatic to the success of early intervention programs.

One of the latest demonstrations of support for the position that parent involvement is essential for successful early intervention programs was provided when Congress passed the 1986 Amendments to the Education of the Handicapped Act (Public Law 99-457), which established what amounts to mandated early intervention programs for all handicapped children by the year 1991. The committee report, which describes Congress' rationale behind the legislation, states,

> The committee received overwhelming testimony affirming the family as the primary learning environment for children under six years of age and pointing out the critical need for parents and professionals to function in a collaborative manner. (From House Report #99-860 as cited in Gilkerson, Hilliard, Scharg, & Shonkoff, 1987, p. 20)

The breadth of support for the benefits of involving parents in early intervention efforts was noted by White, Bush, and Casto (1985) in their analysis of 52 previous reviews of the early intervention efficacy literature. White et al. (1985, p. 423) reported that the most frequently drawn conclusion in previous reviews was "that parental involvement is associated with increased benefits of intervention." reviews.

In spite of the pervasiveness of support for the benefits of parent involvement, it is unclear whether the available research evidence is consistent with frequently made claims, or whether opinions concerning the value of involving parents in early intervention programs have taken on a "life of their own," and have grown in strength and breadth as a result of socio-political factors instead of from defensible, consistent, scientific evidence regarding the benefits of such involvement.

This paper provides a detailed analysis of the evidence concerning the benefits of involving parents in early intervention programs. We begin by

discussing the definitions of parent involvement (interestingly, such definition is absent in legislation such as P.L. 99-457, and is seldom present in the research literature used to support claims about the effectiveness of parent involvement). Next, a summary is given of the reasons most frequently offered as to why parental involvement is so important. Using the definitions of parent involvement, and the reasons offered for involving parents, we then examine the data concerning the benefits associated with parent involvement, and conclude with recommendations for future research and practice.

Defining Parent Involvement in Early Intervention Programs

In spite of the pervasiveness of the position that parent involvement is the key to effective early intervention programs, very few previous authors have defined what they mean by parent involvement. Some indication of what is meant can be gleaned from the program descriptions in research studies which have included a parent involvement component; but these definitions of intervention are often vague and not intended to be comprehensive. Furthermore, the definition of parent involvement may well be different depending on whether we are talking about early intervention with disadvantaged, at-risk,[1] or handicapped children. One of the most comprehensive attempts to define parent involvement is provided by Peterson and Cooper (1989), where they define six different

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[1]*We make a distinction here between children who are disadvantaged (defined in terms of socioeconomic conditions) and at-risk (defined in terms of medical complications or predisposing factors such as low birthweight, trauma surrounding the birth process, or neonatal complications). Obviously, some children who meet our definition of at-risk are also disadvantaged, but not all children who are disadvantaged are also at-risk according to this definition. We believe it is important to distinguish between handicapped, disadvantaged, and at-risk children, since the type of intervention programs, and consequently, the type of parent involvement may be very different for children in each of these three groups. Of course, there is a great deal of overlap in how parent involvement is typically provided to children in each of these groups.*

components that may be involved in parent involvement programs associated with early intervention for handicapped children. Those components are summarized briefly below.

- ***Information*** is needed by parents to better understand their child's handicap, how it will effect development, what special needs it creates, and how this may alter their role and interaction with the child.

- ***Professional partnership*** is often needed by parents to function in the mutual problem-solving necessary for caring for, managing, teaching, and integrating the child into ongoing family life.

- ***A support network*** is needed to share feelings, discuss concerns, receive constructive and empathetic responses to questions and observations, and enjoy a sense of friendship and camaraderie.

- ***Training*** is needed to help parents care for, stimulate, and teach their handicapped child; including training in how to best manage the child and/or how to engage the child in activities that will promote optimal development and learning.

- ***Time off or respite care*** is needed on an intermittent basis to provide "personal relief" from the 24-hour demands for care and supervision often associated with having a handicapped child.

- ***Informal contact with staff*** provides opportunities for parents to be a part of the therapeutic and educational programming for their handicapped child without feeling overwhelmed by demands being made of them as parents.

Another way to define the term "parent involvement" is to examine the reports of what has been attempted in past research. To do that, we analyzed the descriptions of early intervention programs used in 172 different intervention studies which were judged to have substantial parent involvement components as a part of a comprehensive review of the early intervention efficacy literature being carried out at the Early Intervention Research Institute at Utah State University (see White, 1985, for a description of the larger database from which these studies were identified). Each of these

studies was coded as to the way in which parents were involved in the intervention program. As shown in Table 1, the types of parent involvement used in past research can be divided into two broad categories: (1) programs where the parent was used in some way to provide assistance to the child; and (2) programs where some sort of assistance was provided to the parent or other family members. Within each of these broad categories, more specific types

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Insert Table 1 about here

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of parent involvement can be identified. Each of the 10 types of involvement shown in Table 1 were present, alone or in combination with others, in past research studies. For each study included in our analysis, a judgment was made as to what the primary focus of parent involvement was in that particular study. For example, consider a study where parents were trained to provide daily physical therapy to their child with specific routines, behavioral objectives, and evaluation criteria; in addition to being invited to a parent support group which met once each month. Such a study would be coded as having a primary focus of using parents as therapists, with the supplementary aspect of providing emotional support to the parents.

Figure 1 shows the percentage of the 172 studies included in this analysis which used each type of parent involvement. As can be seen, using parents as therapists was by far the most frequent way in which past research has defined parent involvement. In other words, in 80% of the studies we analyzed, parents were used as therapists as either the sole focus or as the major focus of a parent involvement program which involved several other components. Assistance

to the parents or other family members was seldom the major focus of parent involvement programs. This pattern was consistent whether the studies were done with handicapped, at-risk, or disadvantaged children.

Insert Figure 1 about here

No current definition of parent involvement in early intervention would be complete without reference to the concept of "*empowerment*." In recent years, the term empowerment has been used frequently to describe the type of parental involvement that many people think is most effective in early intervention programs (see Cochran, 1988; Dunst & Trivette, 1988; and Rappaport, 1981). Instead of being another component of the parent involvement definition, the notion of empowerment really focuses more on an attitude towards parents, and the "balance of power" between parents and professionals. In other words, parents could engage in any of the components described above in a situation where empowerment is nurtured or denied. This is clear when one considers the definitions given by leading proponents of empowerment.

> *Empowerment*--an interactive process involving mutual respect and critical reflection, through which both people and controlling institutions are changed in ways that provide those people with greater influence over individuals and institutions that are in some way influencing their efforts to achieve equal status in society. (Cochran, 1989, p. 72)

> *Empowerment* implies that many competencies are already present or at least possible....Empowerment implies that what you see as poor functioning is a result of social structure and lack of resources which make it impossible for the existing competencies to operate. It implies that in those cases where new competencies need to be learned, they are best learned in a context of living life, rather than in artificial programs where everyone, including the person learning, knows that it is really the expert who is in charge. (Rappaport, 1981, p. 16)

As Cochran (1989) points out, empowerment represents a very serious effort to shift the balance of power from being primarily in the hands of professionals to substantially in the hands of the parents. Although empowerment is often discussed as if it were a new approach to parent involvement in early intervention programs, Mindick (1988) points out that it is a concept which has been with us for many, many years. Researchers in other fields, such as Rotter (1966) and Seligman (1975) have emphasized for many years the importance of persons feeling like they are in control of the situation. In addition, from its inception in 1965, the Head Start program has emphasized the importance of parental control and participation in governance.

Thus, it seems that there are at least two importance dimensions which should be considered in defining parent involvement in early intervention programs. The first is the type of activities in which parents are engaged or the types of resources and assistance which are offered to parents and families as a function of parent involvement. A second dimension is the attitude and context in which those activities are presented. The presence or absence of empowerment as described by Dunst and Trivette (1988) or Cochran (1988) is one way of describing this second important dimension. Since empowerment is defined largely in terms of the attitude with which professionals involve parents, it is extremely difficult to determine from most research reports the degree to which empowerment is functioning. Not only are the descriptions of parent involvement in most research reports very brief, but one can say that parents are being empowered because it is the socially acceptable thing to be doing, when in reality it is the professionals who are retaining total control of the program. The difficulty in determining the degree to which empowerment

functions does not in any way reduce its potential value, but it does make it difficult to determine the degree to which the concept has value.

Why is it Important to Involve Parents in Early Intervention Programs?

Peterson and Cooper (1989) provide an excellent discussion of the rationales usually used for involving parents in early intervention programs. Using that discussion in conjunction with our analysis of the arguments advanced in the 172 research studies referred to above, we have identified six rationales that are frequently offered as to why it is important to involve parents.

- ***Parents are responsible for the welfare of their children***. Most parents want to have a voice in how their child is educated since they are ultimately responsible for the well being and welfare of the child. Some argue that even if parents wanted to relinquish that responsibility to schools or government agencies, they should not be allowed to do so.

- ***Involved parents provide better political support and advocacy***. Some claim that if parents are knowledgeable about early intervention programs and have first-hand information about how they operate and have observed the benefits that occur from them, they will be in a much better position to advocate for the further growth and support of those programs. Even if programs have very good evidence of benefiting children, it is absolutely essential in times of fiscal restraint to make sure that a broad constituency understands and supports the continued growth and funding of those programs.

- ***Early intervention programs which involve parents are more effective***. It is often alleged that by involving the family where the child spends the majority of his or her time, the benefits of early intervention programs can be reinforced and strengthened. Some people also believe that the first years of a child's life are the most critical for learning and development; consequently, the parents are in a unique position to provide the child with appropriate intervention during this time. According to this position, parent involvement is particularly important if the possibility exists that parents might unknowingly be working at cross-purposes with the professionals in the early intervention program.

- ***By involving parents, the same outcome can be achieved at less cost.*** Early intervention requires a great deal of small group or one-to-one intervention time. Such services can be very expensive. If parents can be used to deliver a portion of the services, it is often suggested that the costs of early intervention can be dramatically reduced.

- ***The benefits of early intervention are maintained better if parents are involved.*** Many people believe that early intervention cannot be successful unless a systematic effort is made to reinforce and build upon the benefits which are achieved during the initial program. It is often argued that the best way to systematically continue to reinforce these benefits is to use parents, since they are the only ones who will be consistently involved with the child. Responsibilities of agencies may change, the family may move, funding may be cut, but the child will always be a member of his/her family.

- ***Parent involvement provides benefits to parents and family members as well as the child.*** By helping parents to understand their child's current situation and potential, and to understand how to manage their child's needs and demands, it is often claimed that parents will have reduced levels of stress, more satisfaction, and a more realistic perception of what is possible and desirable. Participation in early intervention programs also exposes parents to other agencies and services which may be useful to them in other aspects of their life.

When parent involvement is advocated as an essential part of early intervention programs because of a conviction that parents should be involved because they are ultimately responsible for the welfare of their children, or because the program is trying to build an advocacy network to strengthen political and community support; then evidence concerning the benefits for children or parents of such involvement is irrelevant. If, however, parent involvement is advocated because of claims that there are benefits for participating children or parents, or that the same benefit can be achieved at less cost, or that benefits are more likely to be sustained over time; then it is essential to evaluate the available evidence to decide whether such claims can be supported. Such evidence is considered next.

Evidence Concerning the Benefits of Parent Involvement In Early Intervention Programs

Three sources of information are useful in deciding whether currently available evidence supports claims about the benefits of parent involvement in early intervention programs. As mentioned earlier, dozens of previous reviews have concluded that parent involvement is beneficial. How strong is the evidence from those reviews? Next, hundreds of early intervention studies have been done. If those studies which involved parents typically find stronger effects for participating children and families than those studies which do not, it would provide some evidence in support of the benefits of involving parents. Third, a few studies have made direct comparisons of the effects of involving parents vs. not involving parents. How good is the evidence from these studies? The evidence from each of these sources is discussed in the following sections.

Conclusions of Previous Reviewers

Virtually all previous reviewers who have examined the benefits of involving parents in early intervention programs have concluded that parent involvement is valuable (White et al., 1985). An important question is whether the evidence on which these conclusions are based is credible. To answer this question, we selected six widely-cited reviews of the early intervention efficacy literature which have specifically addressed the issue of parental involvement. The reviews include those written by Bronfenbrenner (1974), the

Comptroller General (1975), Datta (1971), Floren & Dokekci (1983), Karnes (1978), and Lazar and Darlington (1982).[2]

The conclusions of these reviewers regarding parent involvement are notably consistent, as indicated below.

> Without family involvement, intervention is likely to be unsuccessful, and what few effects are achieved are likely to disappear once the intervention is discontinued. (Bronfenbrenner, 1974, p. 300)
>
> The most effective programs are those where the child participates at a very young age, and where parents are closely involved in the programs. (Comptroller General, 1979, p. 30)
>
> Parents should be deeply involved in the design and implementation of local programs. (Datta, 1971, p. 67)
>
> We found a cluster of five interrelated program characteristics related to positive outcomes....Direct participation by parents--the more the better. (Lazar, 1971, p. 305)
>
> The results from objective measures of school achievement have not been consistent in all areas; however, one can conclude on the basis of a limited sample that parent education programs can improve children's ability to meet the minimal requirements of schools. (Florin & Dokecki, 1983, p. 43)
>
> Parents and other family members play a significant role in promoting, reinforcing, and sustaining gains made during the preschool years. To prevent the handicapped child's regression to a lower stage of development, parent involvement is a must....No program for young handicapped children can be considered exemplary unless parents are actively involved. (Karnes, 1978, p. 14 and 19).

As can be seen from these conclusions, statements about the value of parent involvement are apparently not intended to address the issue of whether parents **can** be successful teachers of their children. Most statements about the value of parent involvement in early intervention programs, including these, imply

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[2] *Although Lazar and Darlington (1982) is really not a review of the literature, it is widely cited in other documents as being a review. Technically, it is a report of a consortium of longitudinal studies which collaborated in pooling much of their data to address similar issues. It is included in this group of reviews because it is widely cited as a review, and is more like a review than it is an individual research study.*

that some type of program already exists, and that the addition of a parent involvement component will result in the program being more effective than if the parent involvement component had not been added. Although it may well be true that parents can be effective teachers of their children, that is a different issue than whether or not early intervention programs are more effective if parents are involved.

To examine the credibility of the evidence on which such conclusions were based, we identified the original research studies which were cited in support of the conclusions about parent involvement in each of the reviews. The research studies cited by each review are listed in Table 2. As can be seen,

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Insert Table 2 about here

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the number of studies cited in support of the conclusion that parent involvement is beneficial for early intervention programs ranged from 14 in the Comptroller General's (1979) report to zero in Datta's (1971) report.

We next obtained each of the studies cited by these reviewers to determine whether the evidence from these studies supported the claims regarding the benefits of parent involvement in early intervention programs. Table 3 shows the results of this analysis which suggests that the conclusions of these reviewers should be viewed with caution. For example, only three of the studies, two of which were judged to be of poor methodological quality, involved a direct test of whether an early intervention program is more effective when parents are involved than when they are not involved (Gilmer, Miller, & Gray, 1969; Karnes, Teska, & Hodgins, 1970; and Radin, 1972). In other words, each

of these studies included at least two groups of children; one which participated in an early intervention program without significant parent involvement, and the other which participated in the same early intervention program with the addition of parent involvement. Any differences between the groups on outcome measures would theoretically be due to the fact that one group had parent involvement while the other did not. Only one of the three found a positive effect associated with involving parents, and Karnes et al. (1970) and Radin (1972) found that children who participated in the group involving parents actually performed worse than the children participating in the group that did not involve parents. The methodological weaknesses in all of these studies limits the credibility of these results. However, if the results were accepted at face value (which is not something we would advocate), they would suggest that parent involvement has mixed results--more often negative than positive.

As shown in Table 3, three additional studies provided an indirect test of the hypothesis that early intervention is more effective if parents are involved (Love et al., 1976; Miller & Dyer, 1975; and Sprigle, 1974). In these studies, two or more alternative types of early intervention programs were compared. The test is indirect because the alternative intervention strategies varied in more ways than just the presence or absence of a parental involvement component. For example, Miller and Dyer (1975) compared the effects of participating in a Bereiter-Englemann, Montessori, DARCEE, or traditional early intervention program. Only the DARCEE program (modeled after the work of Gray and Ruttle, 1976) involved a substantial parent involvement component. The indirect test of the hypothesis that parent involvement is beneficial comes from a comparison of the results from the DARCEE program to the results of the other three

programs. The reason it is an indirect test is because it is impossible to sort out whether any differences between groups on outcome measures are attributable to the presence or absence of parent involvement, or to other differences among the programs such as philosophical approach, class size, or other aspects of the curriculum. In this particular case, those children in the group which involved parents actually did worse than children in the other three groups. In the Sprigle (1974) study, children in the group with parent involvement did substantially better, whereas in the Love et al. (1976) there was no difference between the groups.

The other 14 studies cited by these reviewers provide little, if any, information on the question of whether early intervention is more effective if parents are involved. Five of the studies provide evidence that children in center-based intervention with involves parents perform better than children who receive no intervention; four of the studies provide evidence that children who participate in early intervention programs delivered primarily by their parents do better than children who receive no intervention; and five of the studies did not even involve parents.

It is also important to note that none of the studies cited by these particular reviewers provide evidence that it is more cost-effective to involve parents in early intervention programs. In fact, only two of the studies even collected data about costs (Love et al., 1976; Weikart, Bond, & McNeir, 1978), and neither of these directly addressed the cost-benefit issue of parent involvement. It is also interesting to note that all of these studies were conducted with disadvantaged children, even though some of the reviewers drew conclusions about handicapped children. Whether the results of studies with

disadvantaged children would even apply to handicapped children is debatable. Given the severe developmental lags, management problems, and stress associated with handicapped children as compared to disadvantaged children, it would seem that the effectiveness of a particular type of parent involvement program might vary substantially for disadvantaged and handicapped children. Finally, it is instructive to consider the nature of the parent involvement in those 15 studies which involved parents in a substantial way. As can be seen in Table 3, all but one of the studies focused primarily on using parents as therapists, and almost no effort was made in these studies to assist parents or other family members.

Insert Table 3 about here

The fact that the majority of the research cited in these reviews has focused only on disadvantaged children, has been of relatively poor methodological quality, and has implicitly defined parent involvement only as using the parent as a supplemental therapist should make us more cautious about the conclusions of previous reviewers that involving parents will result in more effective early intervention programs. Irrespective of these caveats, the information in the studies cited by these reviewers does not support the position that parent involvement contributes to more effective early intervention programs.

Are Early Intervention Programs Which Involve Parents More Effective Than Those That Do Not?

Hundreds of studies have compared the effects of some type of early intervention program to a no-treatment control group. Additional evidence about whether it is beneficial to involve parents in early intervention programs can be found by comparing the results of all of the intervention vs. no intervention studies which involved parents, to the results of all of the intervention vs. no intervention studies which did not involve parents. This can be done by examining the average effect size of such intervention vs. no intervention studies for those studies where parents were involved and those studies where parents were not involved in the intervention. If parent involvement contributes to more effective early intervention programs, then one would expect the average effect size for studies involving parents to be larger than the average effect size for studies which did not involve parents.

Evidence of this nature is available in a data base at the Early Intervention Research Institute at Utah State University which describes the characteristics of previous studies of early intervention effectiveness. Over 350 different studies have been collected, and each of those studies has been analyzed with respect to the nature of the intervention that was implemented, the characteristics of participating children and families, the methodological quality of the study, the type of outcome measures which were collected, and the results of each study defined as a standardized mean different effect size (in other words, the mean score of children in the experimental group minus the mean score of the children in the control group divided by the standard deviation of

children in the control group). One of the variables coded for each study was the degree to which parents were involved in the early intervention program.

Table 4 reports the average effect size for 193 intervention vs. no intervention studies of center-based programs--some of which involved parents and some of which did not. Of course, the validity of such a comparison depends on the assumption that all other variables that might have affected outcomes are equally balanced between the two groups. For example, suppose that the earlier

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Insert Table 4 about here

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a child starts an early intervention program, the larger the effect of the program will be (a widely-held assumption about early intervention). If most of those programs which had extensive parent involvement also started earlier, then there might be an apparent advantage for programs with extensive parent involvement which is really attributable to the fact that the children started earlier. We have checked for the presence of such confounding for the data in Table 4 and have found none. However, with so many different variables that are possibly related to the effects of early intervention, it is difficult to be sure that such confounding does not exist. Thus, one must view these data with caution.

In spite of the possibility of confounds, these data provide some important evidence about whether parent involvement leads to more effective early intervention programs. For the 43 studies with disadvantaged children judged to be of good methodological quality, children participating in programs with moderate to extensive parent involvement showed the same benefits compared to

no treatment control groups, as children participating in programs which had little or no parent involvement. The same is true for handicapped and at-risk children.

Similar results are shown in Table 5, which summarizes the results of 43 intervention vs. no intervention studies for home-based early intervention programs in which parents are the major or only provider and those programs where the parent is involved in a minor degree or not at all. For disadvantaged children there is no advantage for those home-based programs in which parents are more heavily involved. For handicapped children, there was not sufficient information to make such a comparison, since very few studies of home-based intervention with handicapped children have been done in which parents were not extensively involved.

Insert Table 5 about here

In summary, we can find no evidence that intervention vs. no intervention studies which have involved parents are any more effective than similar studies which do not involve parents. Admittedly, the potential for confounding variables to obscure true relationships in a data set of this nature is great. Furthermore, as shown by the data reported earlier in Figure 1, most of these studies have focused primarily or even exclusively on using parents as therapists instead of involving them in other ways. Thus, it would be inappropriate to conclude, based on these data, that parent involvement in early intervention is not beneficial. Just as important, however, is the need to make a clear statement that no evidence exists in this type of data to argue that

parent involvement in early intervention will lead to better outcomes for children or families.

Experimental Manipulation of the Effects of Parent Involvement

The best information comes from the limited number of studies which have experimentally addressed the issue of whether early intervention will be more effective if parents are involved. In other words, within the same study, some children were in a group with parent involvement, and others were in a group without parent involvement. Such studies can be categorized as to whether the degree of parent involvement is the only variable which is experimentally manipulated (what we will refer to as a *direct comparison*), or whether parent involvement is one of several variables (e.g., setting, age-at-start, nature of curriculum materials) which is experimentally manipulated (what we will refer to as an *indirect comparison*). An example of a direct comparison would be a study in which children in a center-based program which includes parent involvement are compared to children in the same center-based program without parent involvement. In this case, the presence or absence of parent involvement is the only variable which differentiates the independent variable for the two groups of children. An indirect comparison would be one where parents are more heavily involved in the one group than in the other group, but there are also other differences between the two groups. For example, Barnett, Escobar, and Ravsten (1987) reported a study which compared a home-based intervention with parents acting as the child's therapist vs. a center-based intervention where speech therapists provided the intervention. In this case, it is difficult to

know whether the differences between the groups is attributable to the fact that parents were more heavily involved in one group than the other, whether it was the setting in which the intervention took place (home vs. center), or whether there were differences in the curriculum used in each of the groups.

Table 6 summarizes all of the direct and indirect comparisons of degree of parent involvement we have been able to locate. As can be seen, there are 16 different studies for handicapped children, 13 for disadvantaged children, and 2 for at-risk children. We believe that the information from the indirect comparisons is so confounded with other variables that there is little, if any, useful evidence about the benefits of involving parents in intervention programs. Nonetheless, since these studies are sometimes cited in the support of involving parents in early intervention programs, we thought it was important to include them, even though we believe the information is of little use. The important information comes from those studies in which a direct comparison is made.

As can be seen in Table 6, the evidence from good quality studies with handicapped children is fairly convincing that involving parents, where the primary focus is to use them as supplemental therapists, in a situation where children are already involved in a center-based program does not appear to be beneficial for either children or parents. The average effect size for child

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Insert Table 6 about here

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outcomes for the three good-quality studies (each of which were randomized experiments, with assessments done by trained diagnosticians who were uninformed

about the purpose about the study, and data collected to verify that the intervention was implemented as planned) is .11. In other words, the average gain in these studies is 1.5 points in IQ or the movement of a child from the 20th to the 23rd percentile on a measure of developmental functioning. These effects are surprisingly small in light of the claims made for the benefits of parent involvement. Results for parent outcomes are also negligible (average effect size is -.05).

Two additional studies (Barnett et al., 1987; Henry, 1977) which were judged to be of fair methodological quality found somewhat larger effects associated with parent involvement. The Barnett et al. (1987) study was with speech impaired children. It may be that speech and articulation deficits are more susceptible to remediation by parents than are general developmental lags. Henry (1977) added a parent as therapist component to one group of children in a daycare program while the other children continued to receive just the daycare. This is very different from the first three studies listed in Table 6 where children were already enrolled in a comprehensive center-based early intervention program. Although more research is needed, it is not implausible that using parents as therapists in conjunction with a daycare program would result in significant gains because children are receiving little if any educational intervention. Whereas, adding a parent involvement component to a good center-based early intervention program may have few, if any effects on children because they are already making all of the developmental growth they are capable of making as a result of the center-based program.

Taken together, the data from direct comparisons with handicapped children suggests little, if any, support for claims that intervention will be more

effective if parents are involved. It is important to note that in all but one case of the studies identified so far, the primary focus of parent involvement has been to use parents as therapists for their children. Thus, previous research provides us with almost no information about the effects of involving parents in other ways. If handicapped children are attending a high-quality, center-based program, little, if anything, will be gained for children or their parents by adding a parent involvement component in which parents are used as therapists for their children.

For disadvantaged children, we could find only one good-quality study and one fair-quality study in which a direct comparison was made of the effects of involving parents in early intervention programs. Both of these (Casto & White, 1987; Radin, 1971) used parents primarily as therapists for their children. Both found that children participating in early intervention programs without parent involvement actually did better than those participating in programs with parent involvement. Although the information from studies of lower methodological quality is less useful, it is not inconsistent with the results of the two studies of better methodological quality. In other words, of the seven other comparisons, three find negative effect sizes, two relatively small benefits, and two moderately large benefits associated with involving parents in early intervention programs for disadvantaged children. Again, almost all of the studies with disadvantaged children have used parents as therapists for their children rather than providing other forms of parent involvement.

Conclusions

Although there is broad-based consensus that early intervention programs which involve parents will be more effective than those programs which do not, there is remarkably little evidence for this position. The evidence cited by prominent reviewers of the early intervention research literature is largely anecdotal, contradictory, or irrelevant to the hypothesis that programs will be more effective if parents are involved. Average effect sizes of treatment vs. no treatment studies in which parents are involved are about the same as the average effect sizes of treatment vs. no treatment studies in which parents are not involved. Finally, the results of direct comparisons for handicapped and disadvantaged children suggest that the benefits of involving parents in early intervention programs, at least in the way that parents have been involved heretofore, is non-existent or very small.

Unfortunately, much of the data to date comes from studies of relatively poor methodological quality, and the type of parent involvement about which we have results from experimental studies is limited almost exclusively to using parents as therapists for their children. There is relatively good data that the use of parents as therapists for their children has negligible benefits for moderately to severely handicapped children already participating in a center-based early intervention program. For disadvantaged children, less high-quality data is available, but the best studies suggest that the addition of parent involvement to existing early intervention programs, at least as parent involvement has been defined in past research, is of no benefit. For at-risk

children, little research concerning parent involvement has been done, and no direct comparisons of the benefits of involving parents could be found.

Our conclusion from all of the preceding data is that persuasion and politics about the benefits of parent involvement in early intervention programs have gone far beyond the available scientific evidence. It may well be that certain types of parent involvement contribute to more effective early intervention programs. If so, research should be able to document those benefits. To date, however, we can find no credible scientific support for benefits of the nature described by prominent researchers, policy makers, or administrators.

The fact that existing laws mandate the involvement of parents in early intervention programs should be considered an invitation to use research to determine what types of parent involvement are most effective. It may be that the best type of parent involvement for handicapped children is to provide respite care, invitations to a support group, and the involvement of parents in developing their child's Individualized Educational Program. Alternatively, it may be that more active involvement is necessary to accomplish the types of benefits that many people have claimed are associated with parent involvement.

Unless we begin doing systematic evaluation of the effects of different types of parent involvement, we'll never know what type of parent involvement is best for which children and their families. We can no longer assume that all kinds of parent involvement are beneficial, or argue for the necessity of a particular type of parent involvement in the absence of evidence. Politics, persuasion, and personal preference have been the tools of past decisions.

Parent involvement programs have been marketed like laundry soap and weight-loss programs. Now it's time to begin using research to move the field forward.

Ten years ago, Beller (1979) observed that,

> However, in spite of the persuasiveness of the argument, the evidence does not support the assumption that focusing on the parent as the change agent is responsible for the lasting effect of these infant intervention programs. (p. 890)

His statement is still true today. Hopefully it won't be in ten more years.

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Those research studies cited by previous reviewers are marked with an "." Since most of these projects have resulted in multiple publications, the particular reference cited here may not be the latest or the most comprehensive. In most cases, these are the references cited by the reviewer. Where different reviewers cited different articles about the same project, we have arbitrarily selected one.

TABLE 1

TYPES OF
PARENT INVOLVEMENT
IN
EARLY INTERVENTION PROGRAMS

Parent Assistance to Child	
PARENTS AS THERAPISTS:	Parent teaches developmental skills (e.g., motor, language, self help) to the child.
PARENT/CHILD RELATIONS:	Parent engages in activities to enhance attachment, bonding, etc. with the child.
SENSORY STIMULATION:	Stimulation of the senses via activities such as spinning, rolling, or stroking.
PARENTS AS CLASSROOM AIDES:	Parent serving as classroom aides for their own and other children.

Help to Parents/Family	
EMOTIONAL SUPPORT:	Providing psychological service, counseling, and/or support groups for parents and family.
PARENTING SKILLS:	Teaching parents generic child management skills, teaching values, etc.
JOB TRAINING:	Providing education to parents in job related skills.
RESPITE CARE:	Providing education to parents in job related skills.
KNOWLEDGE OF CHILD DEVELOPMENT:	Teaching parents about general child development, (e.g., Piagatian stages, motor milestones, psychological states, etc.)

Table 2. Research studies cited by prominent reviewers in support of the conclusion that parent involvement contributes to more effective early intervention programs.

Research Studies	Reviewers					
	Bronfen-brenner	Karnes	Florin & Dokecki	Comptroller General	Datta	Lazar
Beller (1969). The Philadelphia Project				X		X
Deutsch et al. (1974). (IDS) Institute for Developmental Studies				X		X
Gilmer, Miller, & Gray (1970).	X		X			
Gordon (1971). The Parent Education Program	X	X	X	X		X
Gray & Klaus (1970). The Early Training Project	X	X	X	X		X
Gray & Ruttle (1976). The Family Oriented Visiting Program				X		
Karnes et al. (1969). The Curriculum Comparison Project		X	X	X		X
Karnes, Teska, & Hodgins (1970).	X	X				
Levenstein (1970). The Verbal Interaction Project	X	X	X	X		X
Levenstein & Sunley (1968).	X					X
Love et al. (1976). National Home Start Evaluation			X			
Miller & Dyer (1975). Curriculum Comparison Project				X		X
Palmer & Siegel (1977). The Harlem Training Project				X		X
Radin (1972).	X		X			
Sprigle (1974). Learning to Learn Program			X			
Weikart, Bond, & McNeir (1978). The Perry Preschool Project			X	X		X
Weikart et al. (1978). The Curriculum Demonstration Project				X		
Weikart & Lambie (1969). Ypsilanti-Carnegie Infant Educ. Project		X		X		X
Woolman (1971). The Micro-Social Learning System				X		X
Zigler & Trickett (1978). The New Haven Follow Through Study				X		X

Table 3

STUDIES CITED BY PROMINANT REVIEWERS IN SUPPORT OF THE BENEFITS OF PARENT INVOLVEMENT IN EARLY INTERVENTION

	Nature of Research Population	Major Focus of Parent Involvement	Supplementary Aspect(s) of Parent Involvement	Quality of Study	Effect Size Attributable to Parent Involvement	Were Program Costs Analyzed?
DIRECT TEST OF WHETHER IT IS BENEFICIAL TO INVOLVE PARENTS IN EARLY INTERVENTION						
Gilmer, Miller, & Gray (1970)	Disadvantaged	Parent as Therapist	—	Poor	.37	No
Karnes, Teska, & Hodgins (1970)	Disadvantaged	Parent as Therapist	Emotional Support	Poor	-.26	No
Radin (1972)	Disadvantaged	Parent as Therapist	Parenting Skills	Fair	-.12	No
INDIRECT TEST OF WHETHER IT IS BENEFICIAL TO INVOLVE PARENTS IN EARLY INTERVENTION						
Love et al. (1976). National Home Start Evaluation	Disadvantaged	Parent as Therapist	Emotional Support, Child Development, Job Training/Educ.	Poor	0	Yes
Miller & Dyer (1975). Curriculum Comparison Project	Disadvantaged	Parent as Therapist	—	Fair	-.33	No
Sprigle (1974). Learning to Learn Program	Disadvantaged	Parent as Therapist	Parent/Child Relations	Poor	.99	No
IS CENTER-BASED INTERVENTION WHICH INVOLVES PARENTS BETTER THAN NOTHING?					Effect size attributable to intervention vs. no intervention	
Gordon (1971). The Parent Education Program	Disadvantaged	Parent as Therapist	Parent/Child Relations, Sensory Stimulation, Emotional Support	Good	.42	No
Gray & Klaus (1970). The Early Training Project	Disadvantaged	Parent as Therapist	Parent/Child Relations & Child Development Education	Good	.24	No
Weikart, Bond, & McNeir (1978). The Perry Preschool Project	Disadvantaged	Parent as Therapist	—	Good	.27	Yes
Weikart et al. (1978). The Curriculum Demonstration Project	Disadvantaged	Parent as Therapist	—	Poor	2.51	No
Woolman (1971). The Micro-Social Learning System	Disadvantaged	Parent as Class Aide	—	Poor	.95	No
IS PARENT DELIVERED EARLY INTERVENTION BETTER THAN NOTHING?						
Gray & Ruttle (1976). The Family Oriented Visiting Program	Disadvantaged	Parent as Therapist	Parent/Child Relations, Parenting Skills, Child Development Educ.	Poor	.43	No
Levenstein (1970). The Verbal Interaction Project	Disadvantaged	Parent as Therapist	Parent/Child Relations	Fair	.50	No
Levenstein & Sunley (1968).	Disadvantaged	Parent as Therapist	—	Fair	.87	No
Weikart & Lambie (1969). Ypsilanti-Carnegie Infant Education	Disadvantaged	Parent as Therapist	—	Poor	.95	No
IS EARLY INTERVENTION WHICH DOES NOT INVOLVE PARENTS BETTER THAN NOTHING?						
Beller (1969). The Philadelphia Project	Disadvantaged	N/A	N/A	Fair	.27	No
Deutsch et al. (1974). Institute for Developmental Studies	Disadvantaged			Good	.38	No
Karnes et al. (1969). The Curriculum Comparison Project	Disadvantaged			Fair	.42	No
Palmer & Siegel (1977). The Harlem Training Project	Disadvantaged			Fair	.31	No
Zigler & Trickett (1978). The New Haven Follow Through Study	Disadvantaged			Fair	.75	No

TABLE 4
IMMEDIATE BENEFITS OF PARENT INVOLVEMENT IN CENTER-BASED EARLY INTERVENTION PROGRAMS

(Average Effect Size for Different Levels of Parent Involvement in 193 Studies)

	Studies of Good Methodological Quality (83 Studies)		Studies of Poor Methodological Quality (122 Studies)	
	Degree of Parent/Family Involvement			
	Extensive/ Moderate Involvement	Little/No Involvement	Extensive/ Moderate Involvement	Little/No Involvement
Disadvantaged Children	.52 89(14)	.53 140(29)	1.24 33(9)	.62 177(45)
Handicapped Children	.43 41(8)	.65 32(12)	.78 117(45)	.92 56(24)
At-Risk Children	.30 10(4)	.32 41(19)	*	.70 9(5)

Note: Numbers below the average effect size (ES) in each cell indicate the number of ESs and the number of studies (in parenthesis) on which each calculation is based. Averages based on less than four studies are not reported.

* Averages based on fewer than 4 studies are not reported

TABLE 5
IMMEDIATE BENEFITS OF PARENT INVOLVEMENT IN HOME-BASED EARLY INTERVENTION PROGRAMS

(Average Effect Size for Different Levels of Parent Involvement in 43 Studies)

	Studies of Good Methodological Quality (21 Studies)		Studies of Poor Methodological Quality (24 Studies)	
	Degree of Parent/Family Involvement			
	Major or Only	Minor or Not	Major or Only	Minor or Not
Disadvantaged Children	.49 30(7)	.66 30(8)	.28 17(5)	.74 15(4)
Handicapped Children	.99 14(6)	*	1.10 30(15)	*

Note: Numbers below the average effect size (ES) in each cell indicate the number of ESs and the number of studies (in parenthesis) on which each calculation is based. Averages based on less than four studies are not reported.

* Averages based on fewer than 4 studies are not reported

Table 6
Effects of Adding a Parent Involvement Component to Early Intervention

Studies with Handicapped Children

REFERENCE	DESCRIPTION OF THE COMPARISON	STUDY QUALITY	PRIMARY FOCUS OF PARENTAL INVOLVEMENT	SUPPLEMENTARY ASPECTS OF PARENTAL INVOLVEMENT	AVERAGE EFFECT SIZE FOR: CHILD	PARENT
DIRECT COMPARISONS OF BENEFITS OF PARENT INVOLVEMENT:						
Innocenti, 1988	Center based intervention plus parental involvement vs. center based intervention alone	good	Parent as therapists	Emotional support	.14	.03
Summers, 1988	Center based intervention plus parental involvement vs. center based intervention alone	good	Parent as therapist	Emotional support	.03	-.23
Summers, 1988	Center based intervention plus parental involvement vs. center based intervention alone	good	Parent as therapist	Emotional support	.17	.06
Barnett, Escobar & Ravsten, 1987	Center & home intervention vs. center intervention	fair	Parent as therapist	--	.26	
Henry, 1977	Day care program plus parental training vs. day care program alone	fair	Parent as therapist	--	.72	
Minor et al. 1983	Center based intervention plus parental involvement vs. center based intervention alone	poor	Parent as therapist	--	2.21	

Table 6
Effects of Adding a Parent Involvement Component to Early Intervention (continued)

Studies with Handicapped Children (continued)

REFERENCE	DESCRIPTION OF THE COMPARISON	STUDY QUALITY	PRIMARY FOCUS OF PARENTAL INVOLVEMENT	SUPPLEMENTARY ASPECTS OF PARENTAL INVOLVEMENT	AVERAGE EFFECT SIZE FOR: CHILD	PARENT
Miller, 1981	Preschool developmental class plus at-home program vs. preschool developmental class alone	poor	Parent as therapist	Parent/child relations Emotional support Resource Access	.16	
Scherzer, 1976	Physical therapy plus parent training vs. physical therapy alone	poor	Parent as therapist	--	.50	
INDIRECT COMPARISONS OF BENEFITS OF PARENT INVOLVEMENT:						
Eiserman, 1988	Teaching parents to do speech therapy with children vs. therapists providing services to children	good	Parent as therapist	--	.10	.04
Bidder et al. 1975	Parents as therapists vs. home based intervention by health care professional	good	Parent as therapist	Emotional support	1.07	
Barnett, Escobar & Ravsten, 1987	Home based intervention by parents vs. center based intervention	fair	Parent as therapist	--	.19	
	Center plus home based intervention vs. home intervention	fair	Parent as therapist	--	.15	

Table 6
Effects of Adding a Parent Involvement Component to Early Intervention (continued)

Studies with Handicapped Children (continued)

REFERENCE	DESCRIPTION OF THE COMPARISON	STUDY QUALITY	PRIMARY FOCUS OF PARENTAL INVOLVEMENT	SUPPLEMENTARY ASPECTS OF PARENTAL INVOLVEMENT	AVERAGE EFFECT SIZE FOR: CHILD	PARENT
Shelton, 1978	Reading to children by parents vs. traditional nursery school	fair	Parent as therapist	--	.05	
Goodman et al. 1984	Hospital-affiliated program plus parental involvement community day care programs alone	poor	Parent as therapist	Emotional support	.51	
Allen et al. 1980	Parent-child interaction intervention vs. traditional intervention	poor	Parent/child relations	Parent as therapist Emotional support	.90	
Horton, 1976	Hearing aid before the age of 3 plus parental involvement vs. hearing aid alone	poor	Parent as therapist	Sensory stimulation Emotional support Child Develop. Educ.	.83	
Kysela et al. 1981	Extensive home based training to parent vs. center based intervention to child with moderate parental involvement	poor	Parent as therapist	--	-.42	

Table 6
Effects of Adding a Parent Involvement Component to Early Intervention (continued)

Studies with Disadvantaged Children

REFERENCE	DESCRIPTION OF THE COMPARISON	STUDY QUALITY	PRIMARY FOCUS OF PARENTAL INVOLVEMENT	SUPPLEMENTARY ASPECTS OF PARENTAL INVOLVEMENT	AVERAGE EFFECT SIZE FOR: CHILD	PARENT
DIRECT COMPARISONS OF BENEFITS OF PARENT INVOLVEMENT:						
Casto & White, 1987	Center based intervention plus parental involvement vs. center based intervention alone	good	Parent as therapist	Emotional support	-.32	.31
Radin, 1971	Preschool plus parental involvement vs. preschool only	fair	Parent as therapist	Parenting skills	-.12	
Adkins et al. 1968	University of Hawaii Preschool (UHP) plus parental involvement vs. UHP alone	poor	Parent as therapist	Classroom aide	-.11	
Dusewicz & O'Connell, 1975	Center based intervention plus parental involvement vs. center based intervention alone	poor	Parent as therapist	Child Develop. Educ.	.26	
	Home based intervention plus parent involvement vs. home based intervention alone	poor	Parent as therapist	--	-.06	
Gilmer, 1969	Preschool center-based program for mothers and children vs. center-based instruction to child only	poor	Parent as therapist	--	.24	
Karnes et al. 1970	Center based intervention plus mother training vs. center based intervention only	poor	Parent as therapist	Emotional support	-.26	

Table 6
Effects of Adding a Parent Involvement Component to Early Intervention (continued)

Studies with Disadvantaged Children (continued)

REFERENCE	DESCRIPTION OF THE COMPARISON	STUDY QUALITY	PRIMARY FOCUS OF PARENTAL INVOLVEMENT	SUPPLEMENTARY ASPECTS OF PARENTAL INVOLVEMENT	AVERAGE EFFECT SIZE FOR: CHILD	PARENT
McCarthy, 1968	Head Start with additional parent involvement vs. Head Start alone	poor	Parent as therapist	Parent/child relations Child Develop. Educ.	.63	1.15
Stern, Marshall, & Edwards 1969	Head Start plus parent training vs. Head Start alone	poor	Emotional support	Parent as therapist	.58	
INDIRECT COMPARISONS OF BENEFITS OF PARENT INVOLVEMENT:						
Miller & Dyer, 1975	Various curriculum approaches without parental involvement vs. a different curriculum approach which uses extensive parent involvement	good	Parent as therapist	--	-.31	
Ramey & Bryant 1983	Parent education plus intensive educational day care vs. parent education alone	good	Child Develop. Educ.	--	1.30	
Sprigle, 1974	Center based intervention plus parental involvement vs. traditional day care	poor	Parent as therapist	Parent/child relations	.82	
Dusewicz & O'Connell, 1975	Center based intervention plus parental involvement vs. home based intervention with no parental involvement	poor	Parent as therapist	Child Develop. Educ.	.11	

Table 6
Effects of Adding a Parent Involvement Component to Early Intervention (continued)

Studies with Disadvantaged Children (continued)

REFERENCE	DESCRIPTION OF THE COMPARISON	STUDY QUALITY	PRIMARY FOCUS OF PARENTAL INVOLVEMENT	SUPPLEMENTARY ASPECTS OF PARENTAL INVOLVEMENT	AVERAGE EFFECT SIZE FOR: CHILD	PARENT
Nedler & Sebera 1971	Parent involvement program vs. day care	poor	Parenting skills	Resource Access Parent as therapist		.75
	Parent involvement program vs. center based intervention	poor	Parenting skills	Resource Access Parent as therapist		.03
Scott, 1974	Home based intervention vs. center based intervention	poor	Parent as therapist	--		.12
Slaughter, 1983	Toy demonstration program at home plus extensive parental involvement vs. mother discussion group at a center plus moderate parental involvement	poor	Parent/child relations	Emotional support		-.01

Studies with At-Risk Children

INDIRECT COMPARISONS OF BENEFITS OF PARENT INVOLVEMENT:

Powell, 1974	Stimulation by mothers or nurses vs. regular stimulation	fair	Sensory stimulation	Parent/child relations		.44
Williams & Scarr, 1971	Home based intervention by therapists plus extensive parental involvement vs. a different home based intervention plus moderate parental involvement	fair	Parent as therapist	--		.88

Figure 1: Frequency with which different types of parent involvement are used in research studies